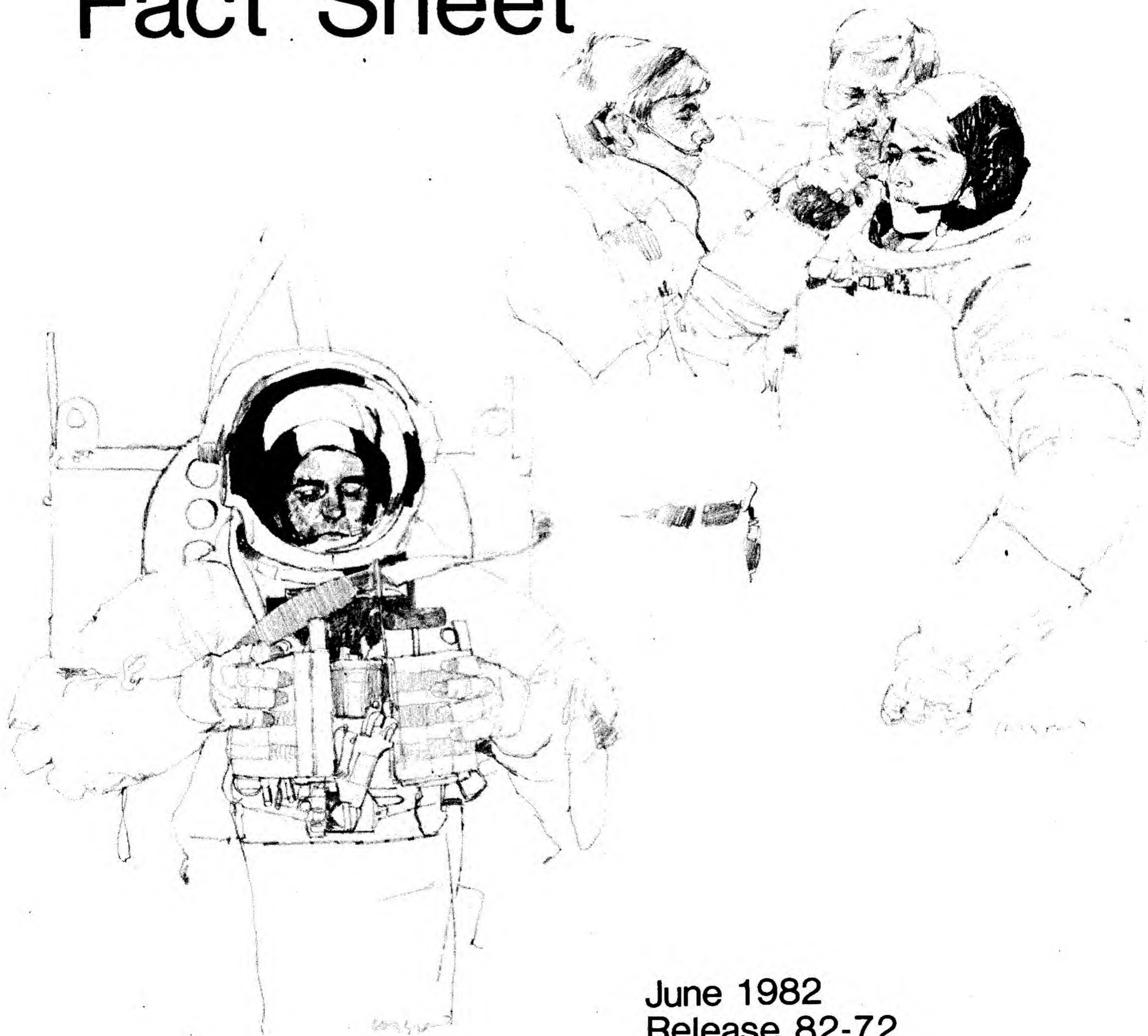


NASA

National Aeronautics and
Space Administration

Astronauts Fact Sheet



June 1982
Release 82-72



National Aeronautics and
Space Administration

Washington, D.C.
20546

Reply to Attn of **ME**

F A C T S H E E T

S P A C E F L I G H T P A R T I C I P A T I O N P R O G R A M

Due to the tremendous public interest in flying on a space shuttle mission, this fact sheet is being distributed in lieu of answering each letter with an individual response.

While NASA appreciates the enthusiasm young people have shown in wanting to take part in a Space Shuttle mission, we do not have plans to include persons under the age of 25 on our flights in the near term. The limited "seating" on the Shuttle is reserved to accommodate the necessary flight crew and Payload Specialists who perform essential tasks during a mission.

We have, however, established the Space Flight Participant Program as a means to include private citizens on selected Shuttle missions. The first person who has flown under this program is Christa McAuliffe, a secondary school social studies teacher from Concord, New Hampshire. Additional flight opportunities will be announced in the future, as well as necessary eligibility requirements. As we gain experience from our ambitious flight schedule over the next few years, it is possible that NASA will consider the expansion of the Space Flight Participant Program to individuals under the age of 25. Before this takes place, we must perform ground-based tests to determine the effects space travel might have on people in this age group.

A new organization has been formed for students interested in the space program. The Young Astronaut Council intends to form chapters around the country to provide activities for students to learn about space. For additional information write to: Young Astronaut Council, 1211 Connecticut Avenue, N.W., Suite 800, Washington, DC 20036.

You can also keep up to date on space activities through the publications and programs of the National Space Institute. Write to the Institute at 600 Maryland Avenue, S.W., West Wing, Suite 203, Washington, DC 20024.

Many exciting opportunities related to the Space Shuttle and Space Station will be available when you are ready to play an active role in the space program. In the meantime, we encourage you to obtain a good background in science and mathematics to help you with your career.

Enclosure

PREFACE

Of 127 pilots and scientists selected as NASA astronauts since April 1959, 78 were on flight status in June 1982. Thirty-six of the 78 were pilot astronauts and 42 were mission specialist or scientist astronauts.

Nine groups of astronauts have been selected. In Group 1 were the seven Mercury astronauts selected in April 1959. Nine test pilots, Group 2, were selected in September 1962. In Group 3 were 14 pilot astronauts selected in October 1963. Group 4, the first six scientist astronauts, was selected in June 1965. In April 1966, 19 pilot astronauts were selected in Group 5. Group 6, 11 scientist-astronauts, was selected in August 1967. Seven Air Force Manned Orbital Laboratory pilots joined the NASA pilot astronaut program in August 1969, as Group 7. Group 8, 35 men and women, the first group selected specifically for the Space Shuttle in January 1978, completed training in August 1979. Group 9, 19 men and women, selected for the Space Shuttle in July 1980, completed training in August 1981.

NASA will recruit new astronaut candidate groups as needed. These astronaut candidates will become Space Shuttle pilots and mission specialists upon completion of training. Announcement of recruiting periods will be issued well in advance of the dates when applications will be accepted.

#

Cover Art

Upper right: "Astronaut Shannon Lucid - Suit Adjusting."
Lower left: "Astronaut Joe Engle and Equipment."
Drawings by Henry Casselli.

ASTRONAUTS BY GROUPS

Group 1: April 1959

	<u>Status</u>
Carpenter, M. Scott	Resigned
Cooper, L. Gordon	Resigned
Glenn, John H.	Resigned
Grissom, Virgil I.	Deceased
Schirra, Walter M. Jr.	Resigned
Shepard, Alan B., Jr.	Resigned
Slayton, Donald K.	Retired

Group 2: September 1962

Armstrong, Neil A.	Resigned
Borman, Frank	Resigned
Conrad, Charles, Jr.	Resigned
Lovell, James A., Jr.	Resigned
McDivitt, James A.	Resigned
See, Elliott J.	Deceased
Stafford, Thomas P.	Resigned
White, Edward H. II	Deceased
Young, John W.	Flight

Group 3: October 1963

Aldrin, Edwin E., Jr.	Resigned
Anders, William A.	Resigned
Bassett, Charles A.	Deceased
Bean, Alan L.	Resigned
Cernan, Eugene A.	Resigned
Chaffee, Roger B.	Deceased
Collins, Michael	Resigned
Cunningham, Walter	Resigned
Eisele, Donn F.	Resigned
Freeman, Theodore C.	Deceased
Gordon, Richard F., Jr.	Resigned
Schweickart, Russell L.	Resigned
Scott, David R.	Resigned
Williams, Clifton C., Jr.	Deceased

Group 4: June 1965

Garriott, Owen K.	Flight
Gibson, Edward G.	Resigned
Graveline, Duane E.	Resigned
Kerwin, Joseph P.	Flight
Michel, F. Curtis	Resigned
Schmitt, Harrison H.	Resigned

Group 5: April 1966

	<u>Status</u>
Brand, Vance D.	Flight
Bull, John S.	Resigned
Carr, Gerald P.	Resigned
Duke, Charles M., Jr.	Resigned
Engle, Joe H.	Flight
Evans, Ronald E.	Resigned
Givens, Edward G.	Deceased
Haise, Fred W., Jr.	Resigned
Irwin, James B.	Resigned
Lind, Don L.	Flight
Lousma, Jack R.	Flight
Mattingly, Thomas K. II	Flight
McCandless, Bruce II	Flight
Mitchell, Edgar D.	Resigned
Pogue, William R.	Resigned
Roosa, Stuart A.	Resigned
Swigert, John L., Jr.	Resigned
Weitz, Paul J.	Flight
Worden, Alfred M.	Resigned

Group 6: August 1967

Allen, Joseph P.	Flight
Chapman, Philip K.	Resigned
England, Anthony W.	Flight
Henize, Karl G.	Flight
Holmquest, Donald L.	Resigned
Lenoir, William B.	Flight
Llewellyn, John A.	Resigned
Musgrave, F. Story	Flight
O'Leary, Brian T.	Resigned
Parker, Robert A.	Flight
Thornton, William E.	Flight

Group 7: August 1969

Bobko, Karol J.	Flight
Crippen, Robert L.	Flight
Fullerton, Charles G.	Flight
Hartsfield, Henry W.	Flight
Overmyer, Robert F.	Flight
Peterson, Donald H.	Flight
Truly, Richard H.	Flight

Group 8: Selected: January 1978
Flight status: August 1979

	<u>Status</u>
Bluford, Guion S., Jr.	Flight
Brandenstein, Daniel C.	Flight
Buchli, James F.	Flight
Coats, Michael L.	Flight
Covey, Richard O.	Flight
Creighton, John O.	Flight
Fabian, John M.	Flight
Fisher, Anna L.	Flight
Gardner, Dale A.	Flight
Gibson, Robert L.	Flight
Gregory, Frederick D.	Flight
Griggs, Stanley D.	Flight
Hart, Terry J.	Flight
Hauck, Frederick H.	Flight
Hawley, Steven A.	Flight
Hoffman, Jeffrey A.	Flight
Lucid, Shannon, W.	Flight
McBride, Jon A.	Flight
(Deceased) McNair, Ronald E.	Flight
Mullane, Richard M.	Flight
Nagel, Steven R.	Flight
(Deceased) Nelson, George D.	Flight
(Deceased) Onizuka, Robert F.	Flight
(Deceased) Resnik, Judith A.	Flight
Ride, Sally K.	Flight
(Deceased) Scobee, Francis R.	Flight
Seddon, Margaret R.	Flight
Shaw, Brewster H., Jr.	Flight
Shriver, Loren J.	Flight
Stewart, Robert L.	Flight
Sullivan, Kathryn D.	Flight
Thagard, Norman E.	Flight
van Hoften, James D.	Flight
Walker, David M.	Flight
Williams, Donald E.	Flight

Group 9: Selected: July 1980
Flight status: August 1981

Bagian, James P.	Flight
Blaha, John E.	Flight
Bolden, Charles F., Jr.	Flight
Bridges, Roy D., Jr.	Flight
Chang, Franklin R.	Flight
- Cleave, Mary L.	Flight
- Dunbar, Bonnie J.	Flight
Fisher, William F.	Flight
Gardner, Guy S.	Flight
Grabe, Ronald J.	Flight

Group 9 cont'd

	<u>Status</u>
Hilmers, David C.	Flight
Leestma, David C.	Flight
Lounge, John M.	Flight
O'Connor, Bryan D.	Flight
Richards, Richard N.	Flight
Ross, Jerry L.	Flight
Smith, Michael J. <i>(Deceased)</i>	Flight
Spring, Sherwood C.	Flight
Springer, Robert C.	Flight

Flight: ^{No} **78** **73** Retired: 1 Resigned: 40 Deceased: ~~8~~ **13**

STATUS, FLIGHTS AND AFFILIATIONS

Sample entry: (not all data apply to each person)

NAME DATE OF BIRTH MILITARY STATUS
Smith, John A. (Oct. 12, 1940) -- Colonel, USAF (Ret.);

DOCTORATE AND FIELD; ASTRONAUT STATUS
Ph. D. (astronomy); Retired, August 1976;

ASTRONAUT GROUP & DATE; FLIGHTS MADE; PERSONAL DATA
Group 3, October 1963; Gemini 3, Apollo 8; served as Deputy of
Flight Systems, Johnson

Aldrin, Edwin E., Jr. (Jan. 20, 1930) -- Colonel*, USAF (Ret.);
resigned, July 1971; Group 3, October 1963; Gemini 12, Apollo
11; retired from Air Force active duty March 1, 1972.

Allen, Joseph P. (June 27, 1937) -- Civilian; Ph.D. (physics);
flight, mission specialist; Group 6, August 1967; NASA
Assistant Administrator for Legislative Affairs, August 1975-
August 1978.

Anders, William A. (Oct. 17, 1933) -- Colonel, USAF (Reserve);
resigned, September 1969; Group 3, October 1963; Apollo 8.

Armstrong, Neil A. (Aug. 5, 1930) -- Civilian; resigned, 1971;
Group 2, September 1962; Gemini 8, Apollo 11; was Deputy
Associate Administrator, Aeronautics, NASA Headquarters
Office of Advanced Research and Technology, 1970.

Bagian, James P. (Feb. 22, 1952) -- Civilian, M.D.; flight,
mission specialist; Group 9, August 1981.

Bassett, Charles A. (Dec. 30, 1931) -- Major, USAF; deceased;
Group 3, October 1963; died in T-38 jet crash with Elliott
See, Feb. 28, 1966, Lambert Municipal Airport, St. Louis.

Bean, Alan L. (March 15, 1932) -- Captain, USN (Ret.); resigned,
June 1981; Group 3, October 1963; Apollo 12, Skylab 3;
retired from the Navy Oct. 1975.

*Rank for all astronauts not on flight status is their rank when
they left NASA.

Blaha, John E. (Aug. 26, 1942) -- Colonel, USAF; flight, pilot; Group 9, August 1981.

Bluford, Guion S. (Nov. 22, 1942) -- Lt. Colonel, USAF; flight, mission specialist; Group 8, August 1979.

Bobko, Karol J. (Dec. 23, 1937) -- Colonel, USAF; flight, pilot; Group 7, August 1969.

Bolden, Charles F., Jr. (Aug. 19, 1946) -- Major, USMC; flight, pilot; Group 9, August 1981.

Borman, Frank (March 14, 1928) -- Colonel, USAF (Ret.); resigned, July 1970; Group 2, September 1962; Gemini 7, Apollo 8; retired from Air Force in July 1970.

Brand, Vance D. (May 9, 1931) -- Civilian; flight, pilot; Group 5, April 1966; Apollo Soyuz Test Project.

Brandenstein, Daniel C. (Jan. 17, 1943) -- Commander, USN; flight, pilot; Group 8, August 1979.

Bridges, Roy D., Jr. (July 19, 1943) -- Lt. Colonel, USAF; flight, pilot; Group 9, August 1981.

Buchli, James F. (June 20, 1945) -- Major, USMC; flight, mission specialist; Group 8; August 1979.

Bull, John S. (Sept. 25, 1935) -- Lt. Commander, USN (Ret.); resigned, July 1968; Group 5, April 1966; withdrew from astronaut program and the Navy because of pulmonary disease.

Carpenter, M. Scott (May 1, 1925) -- Commander, USN (Ret.); resigned, Aug. 1967; Group 1, April 1959; Mercury 7; joined U.S. Navy Sealab program in 1967; retired from Navy July 1969.

Carr, Gerald P. (Aug. 22, 1932) -- Colonel, USMC (Ret.); resigned, June 1977; Group 5, April 1966; Skylab 4; retired from Marine Corps, September 1975.

Cernan, Eugene A. (March 14, 1934) -- Captain, USN (Ret.); resigned July 1976; Group 3, October 1963; Gemini 9, Apollo 10, Apollo 17; retired from the Navy July 1, 1976.

Chaffee, Roger B. (Feb. 15, 1935) -- Lt. Commander, USN; deceased; Group 3, October 1963; died in Apollo spacecraft fire, Kennedy Space Center, Jan. 27, 1967.

Chang, Franklin R. (April 5, 1950) -- Civilian, Ph.D. (applied plasma physics); flight, mission specialist; Group 9, August 1981.

Chapman, Philip K. (March 5, 1935) -- Civilian; Sc.D. (aeronautics and astronautics); resigned, July 1972; Group 6, August 1967.

Cleave, Mary L. (Feb. 5, 1947) -- Civilian, Ph.D. (civil and environmental engineering); flight, mission specialist; Group 9, August 1981.

Coats, Michael L. (Jan. 16, 1945) -- Commander, USN; flight, pilot; Group 8, August 1979.

Collins, Michael (Oct. 31, 1930) -- Colonel* (now a Maj. General, USAF Reserve); resigned, January 1970; Group 3, October 1963; Gemini 10, Apollo 11.

Conrad, Charles, Jr. (June 2, 1930) -- Captain, USN (Ret.); resigned, February 1974; Group 2, September 1962; Gemini 5, Gemini 11, Apollo 12, Skylab 2; left both NASA and Navy, February 1974.

Cooper, L. Gordon (March 6, 1927) -- Colonel, USAF (Ret.); resigned July 1970; Group 1, April 1959; Mercury 9, Gemini 5; retired from the Air Force in July 1970.

Covey, Richard O. (Aug. 1, 1946) -- Major, USAF; flight, pilot; Group 8, August 1979.

Creighton, John O. (April 28, 1943) -- Commander, USN; flight, pilot; Group 8, August 1979.

Crippen, Robert L. (Sept. 11, 1937) -- Captain, USN; flight, pilot; Group 7, August 1969; STS-1.

Cunningham, Walter (March 16, 1932) -- Civilian; resigned, Aug. 1971; Group 3, October 1963; Apollo 7.

Duke, Charles M., Jr. (Oct. 3, 1935) -- Brig. General USAF (Res.); resigned, January 1976; Group 5, April 1966; Apollo 16; resigned from USAF, Jan. 1, 1976.

Dunbar, Bonnie J. (March 3, 1949) -- Civilian; flight, mission specialist; Group 9, August 1981.

Eisele, Donn F. (June 23, 1930) -- Colonel, USAF (Ret.); resigned, July 1972; Group 3, October 1963; Apollo 7; resigned from NASA and retired from Air Force, July 1972. Was technical assistant for manned space flight, NASA Langley Research Center, Hampton, Va., 1970-1972.

England, Anthony W. (May 15, 1942) -- Civilian; Ph.D. (geology and physics); flight, mission specialist; Group 6, August 1967; resigned in August 1972 to accept position with the U.S. Geological Survey; rejoined NASA in 1979 as a scientist-astronaut; will be a mission specialist on Space Shuttle.

Engle, Joe H. (Aug. 26, 1932) -- Colonel, USAF; flight pilot; Group 5, April 1966; commanded Enterprise Space Shuttle free-flight approach and landing tests 2 and 4, Sept. 13 and Oct. 12, 1977; STS-2.

Evans, Ronald E. (Nov. 10, 1935) -- Captain, USN (Ret.); resigned, March 1977; Group 5, April 1966; Apollo 17; retired from Navy April 1976.

Fabian, John M. (Jan. 28, 1939) -- Lt. Colonel, USAF; flight, mission specialist; Group 8, August 1979.

Fisher, Anna L. (Aug. 24, 1949) -- Civilian, M.D.; flight, mission specialist; Group 8, August 1979.

Fisher, William F. (April 1, 1946) -- Civilian, M.D.; flight, mission specialist; Group 9, August 1981.

Freeman, Theodore C. -- Captain, USAF; deceased; Group 3, October 1963; died in T-38 crash, Ellington AFB, Houston, Oct. 31, 1964.

Fullerton, C. Gordon (Oct. 11, 1936) -- Colonel, USAF; flight, pilot; Group 7, August 1969; piloted Enterprise Space Shuttle free flight approach and landing tests 1, 3 and 5 on Aug. 12, Sept. 23 and Oct. 26, 1977; STS-3.

Gardner, Dale A. (Nov. 8, 1948) -- Lt. Commander, USN; flight, mission specialist; Group 8, August 1979.

Gardner, Guy S. (Jan. 6, 1948) -- Major, USAF; flight, pilot; Group 9, August 1981.

Garriott, Owen K. (Nov. 22, 1930) -- Civilian; Ph.D. (electrical engineering); flight, mission specialist; Group 4, June 1965; Skylab 3.

Gibson, Edward G. (Nov. 8, 1936) -- Civilian; Ph.D. (engineering and physics); Group 4, June 1965; resigned, November 1974 then rejoined NASA in March 1977 and resigned again in October 1980; Skylab 4.

Gibson, Robert L. (Oct. 30, 1946) -- Lt. Commander, USN; flight, pilot; Group 8, August 1979.

Givens, Edward G. (Jan. 5, 1930) -- Major, USAF; deceased; Group 5, April 1966, died in an automobile accident near Houston, June 6, 1967.

Glenn, John H., Jr. (July 19, 1921) -- Colonel, USMC (Ret.); resigned, January 1964; Group 1, April 1959; Mercury 6.

Gordon, Richard F., Jr. (Oct. 5, 1928) -- Captain, USN (Ret.); retired, January 1972; Group 3, October 1963; Gemini 11, Apollo 12; retired from Navy and NASA Jan. 1, 1972.

Grabe, Ronald J. (June 13, 1945) -- Major, USAF; flight, pilot; Group 9, August 1981.

Graveline, Duane E. (March 2, 1931) -- Civilian, M.D.; resigned, August 1965; Group 4, June 1965.

Gregory, Frederick D. (Jan. 7, 1941) -- Lt. Colonel, USAF; flight, pilot; Group 8, August 1979.

Griggs, Stanley D. (Sept. 7, 1939) -- Civilian; flight, pilot; Group 8, August 1979.

Grisson, Virgil I. (April 3, 1926) -- Lt. Colonel, USAF; deceased; Group 1, April 1959; Mercury 4, Gemini 3; died in Apollo spacecraft fire at Kennedy Space Center, Jan. 27, 1967.

Haise, Fred W., Jr. (Nov. 14, 1933) -- Civilian; resigned, June 1979; Group 5, April 1966; Apollo 13; commanded Enterprise Space Shuttle free flight approach and landing tests 1, 3 and 5, Aug. 12, Sept. 23 and Oct. 26, 1977.

Hart, Terry J. (Oct. 27, 1946) -- Civilian; flight, mission specialist; Group 8, August 1979.

Hartsfield, Henry W., Jr. (Nov. 21, 1933) -- Colonel, USAF (Ret.); flight, pilot; Group 7, August 1969; retired from Air Force August 1977.

Hauck, Frederick H. (April 11, 1941) -- Captain, USN; flight, pilot; Group 8, August 1979.

Hawley, Steven A. (Dec. 12, 1951) -- Civilian; Ph.D. (astronomy and astrophysics); flight, mission specialist; Group 8, August 1979.

Henize, Karl G. (Oct. 17, 1926) -- Civilian; Ph.D. (astronomy); flight, mission specialist; Group 6, August 1967.

Hilmers, David C. (Jan. 28, 1950) -- Captain, USMC; flight, mission specialist; Group 9, August 1981.

Hoffman, Jeffrey A. (Nov. 2, 1944) -- Civilian; Ph.D. (astrophysics); flight, mission specialist; Group 8, August 1979. 12 Dec. 1993, rescue Hubble Telescope, Endeavour, EVA.

Holmquest, Donald L. (April 7, 1939) -- Civilian; M.D., Ph.D. (physiology); Group 6, August 1967; took leave of absence May 1971 to hold position of Assistant Professor of Radiology and Physiology, Baylor College of Medicine, Houston. Resigned from NASA, in September 1973.

Irwin, James B. (March 17, 1930) -- Colonel, USAF (Ret.); resigned, August 1972; Group 5, April 1966; Apollo 15.

Kerwin, Joseph P. (Feb. 19, 1932) -- Captain, USN; M.D.; flight, mission specialist; Group 4, June 1965; currently NASA representative in Australia; Skylab 2.

Leestma, David C. (May 6, 1949) -- Lt. Commander, USN; flight, mission specialist; Group 9, August 1981.

Lenoir, William B. (Mar. 14, 1939) -- Civilian; Ph.D. (electrical engineering); flight, mission specialist; Group 6, August 1967.

Lind, Don L. (May 18, 1930) -- Civilian; Ph.D. (physics); flight, pilot; Group 5, April 1966.

Llewellyn, John A. (April 22, 1933) -- Civilian; Ph.D. (chemistry); resigned, August 1968; Group 6, August 1967.

Lounge, John M. (June 28, 1946) -- Civilian; flight, mission specialist; Group 9, August 1981.

Lousma, Jack R. (Feb. 29, 1936) -- Colonel, USMC; flight, pilot; Group 5, April 1966; Skylab 3, STS-3.

Lovell, James A., Jr. (March 25, 1928) -- Captain, USN (Ret.); Group 2, September 1962; Gemini 7, Gemini 12, Apollo 8, Apollo 13; served as Deputy Director of Science and Applications, Johnson Space Center, May 1971-March 1973 when he retired from the Navy and resigned from NASA.

Lucid, Shannon W. (Jan. 14, 1943) -- Civilian; Ph.D. (biochemistry); flight, mission specialist; Group 8, August 1979.

Mattingly, Thomas K. II (March 17, 1936) -- Captain, USN; flight, pilot; Group 5, April 1966; Apollo 16.

McBride, Jon A. (Aug. 14, 1943) -- Commander, USN; flight, pilot; Group 8, August 1979.

McCandless, Bruce, II (June 8, 1937) -- Captain, USN; flight, pilot; Group 5, April 1966.

McDivitt, James A. (June 10, 1929) -- Brig. General, USAF (Ret.); Group 2, September 1962; Gemini 4, Apollo 9; was Manager, Apollo Spacecraft Program, Johnson Space Center, September 1969-1972; retired from the Air Force and resigned from NASA Sept. 1, 1972.

McNair, Ronald E. (Oct. 21, 1950) -- Civilian; Ph.D. (physics); flight, mission specialist; Group 8, August 1979. *Deceased (Jan 28, 1986) Challenger.*

Michel, F. Curtis (June 5, 1934) -- Civilian; Ph.D. (physics); resigned, August 1969; Group 4, June 1965.

Mitchell, Edgar D. (Sept. 17, 1930) -- Captain, USN (Ret.); Group 5, April 1966; Apollo 14; retired from the Navy and resigned from NASA Oct. 1, 1972.

Mullane, Richard M. (Sept. 10, 1945) -- Lt. Colonel, USAF; flight, mission specialist; Group 8, August 1979.

Musgrave, F. Story (Aug. 19, 1935) -- Civilian; M.D., Ph.D. (physiology); flight, mission specialist; Group 6, August 1967. *2 Dec 1993, rescue Hubble Telescope, Endeavour, EVA.*

Nagel, Steven R. (Oct. 27, 1946) -- Major, USAF; flight, pilot; Group 8, August 1979.

Nelson, George D. (July 13, 1950) -- Ph.D. (astronomy); flight, mission specialist; Group 8, August 1979.

O'Connor, Bryan D. (Sept. 6, 1946) -- Major USMC; flight, pilot; Group 9, August 1981.

O'Leary, Brian T. (Jan. 27, 1949) -- Civilian; Ph.D. (astronomy); resigned, April 1968; Group 6, August 1967.

Onizuka, Ellison S. (June 24, 1946) -- Captain, USAF; flight, mission specialist; Group 8, August 1979. *(Deceased, Jan-28, 1986) mission Challenger.*

Overmyer, Robert F. (July 14, 1936) -- Colonel, USMC; flight, pilot; Group 7, August 1969.

Parker, Robert A. (Dec. 14, 1936) -- Civilian, Ph.D. (astronomy); flight, mission specialist; Group 6, August 1967.

Peterson, Donald H. (Oct. 22, 1933) -- Colonel, USAF (Ret.); flight, mission specialist; Group 7, August 1969; retired from Air Force January 1980.

Pogue, William R. (Jan. 23, 1930) -- Colonel, USAF (Ret.); resigned, September 1975; Group 5, April 1966; Skylab 4; retired from Air Force September 1975.

Resnik, Judith A. (April 5, 1949) -- Civilian; Ph.D. (electrical engineering); flight, mission specialist; Group 8, August 1979. *(Deceased, Jan 28, 1986, mission Challenger).*

Richards, Richard N. (Aug. 24, 1946) -- Lt. Commander, USN; flight, pilot; Group 9, August 1981.

Ride, Sally K. (May 26, 1951) -- Civilian; Ph.D. (physics); flight, mission specialist; Group 8, August 1981.

Roosa, Stuart A. (Aug. 15, 1933) -- Colonel, USAF (Ret.); resigned, February 1976; Group 5, April 1966; Apollo 14; retired from Air Force Feb. 1, 1976.

Ross, Jerry L. (Jan. 20, 1948) -- Captain, USAF; flight, mission specialist; Group 9, August 1981.

Schirra, Walter M., Jr. (March 12, 1923) -- Captain, USN (Ret.); resigned, July 1969 Group 1, April 1959; Mercury 8, Gemini 6, Apollo 7; retired from Navy in July 1969.

Schmitt, Harrison H. (July 3, 1935) -- Civilian; Ph.D. (geology); resigned, August 1975; Group 4, June 1965; Apollo 17; Special Assistant to NASA Administrator for Energy Research and Development, February 1974; appointed NASA Assistant Administrator for Energy Programs, May 1974.

Schweickart, Russell L. (Oct. 25, 1935) -- Civilian; resigned, August 1979; Group 3, October 1963; Apollo 9; transferred to NASA Headquarters, Washington, D.C., May 1, 1974; detailed to California Governor in 1977 under Intergovernmental Personnel Act.

Scobee, Francis R. (May 19, 1939) -- Major, USAF, (Ret.); flight, pilot; Group 8, August 1979; retired from Air Force January 1980. *(Deceased, Jan - 28, 1986, mission Challenger).*

Scott, David R. (June 6, 1932) -- Colonel, USAF (Ret.); resigned, October 1977; Group 3, October 1963; Gemini 8, Apollo 9, Apollo 15; Special Assistant for Mission Operations, Apollo Spacecraft Program Office, Johnson Space Center from July 1972-August 1973; Deputy Director, NASA Hugh L. Dryden Flight Research Center, Edwards, Calif., from August 1973 until April 1975, when he was appointed Center Director.

Seddon, Margaret R. (Nov. 8, 1947) -- Civilian; M.D.; flight, mission specialist; Group 8, August 1979.

See, Elliott J. (July 23, 1927) -- Civilian; deceased; Group 2, September 1962; died in T-38 crash with Charles Bassett Feb. 28, 1966, Lambert Municipal Airport, St. Louis.

Shaw, Brewster H., Jr. (May 16, 1945) -- Major, USAF; flight, pilot; Group 8, August 1979.

Shepard, Alan B., Jr. (Nov. 18, 1923) -- Rear Admiral, USN (Ret.); resigned, August 1974; Group 1, April 1959; Mercury 3, Apollo 14; retired from the Navy Aug. 1, 1974. *Deceased, 1998*

Shriver, Loren J. (Sept. 23, 1944) -- Major, USAF; flight, pilot; Group 8, August 1979.

Slayton, Donald K. (March 1, 1921) -- Major; USAF (Res.); retired, March 1982; Group 1, April 1959; Apollo Soyuz Test Project; was Manager for Orbital Flight Tests, Space Shuttle Program Office, Johnson Space Center, Houston.

Smith, Michael J. (April 30, 1945) -- Commander USN; flight, pilot; Group 9, August 1981. *(Deceased, Jan 28, 1986, mission Challenger)*

Spring, Sherwood C. (Sept. 3, 1944) -- Major, USA; flight, mission specialist; Group 9, August 1981.

Springer, Robert C. (May 21, 1942) -- Lt. Colonel, USMC; flight, mission specialist; Group 9, August 1981.

Stafford, Thomas P. (Sept. 17, 1930) -- Lt. General, USAF (Ret.); resigned, November 1975; Group 2, September 1962; Gemini 6, Gemini 9, Apollo 10, Apollo Soyuz Test Project; retired from Air Force Nov. 1, 1979.

Stewart, Robert L. (Aug. 13, 1942) -- Lt. Colonel, USA; flight, mission specialist; Group 8, August 1979.

Sullivan, Kathryn D. (Oct. 3, 1951) -- Civilian, Ph. D. (geology); flight, mission specialist; Group 8, August 1979.

Swigert, John L., Jr. (Aug. 30, 1931) -- Civilian; resigned, 1978; Group 5, April 1966; Apollo 13; Appointed Staff Director, Committee on Science and Astronautics, House of Representatives in April 1973.

Thagard, Norman E. (July 3, 1943) -- Civilian; M.D.; flight, mission specialist; Group 8, August 1979.

Thornton, William E. (April 14, 1929) -- Civilian; M.D.; flight, mission specialist; Group 6, August 1967.

Truly, Richard H. (Nov. 12, 1937) -- Captain; USN; flight, pilot; Group 7, August 1969; piloted Enterprise Space Shuttle free flight approach and landing tests 2 and 4 on Sept. 13 and Oct. 12, 1977, STS-2.

van Hoften, James D. (June 11, 1944) -- Civilian; Ph.D. (fluid mechanics); flight, mission specialist; Group 8, August 1979.

Walker, David M. (May 20, 1944) -- Commander, USN; flight, pilot; Group 8, August 1979.

Weitz, Paul J. (July 25, 1932) -- Captain; USN (Ret.) flight, pilot; Group 5, April 1966; Skylab 2; retired from Navy June 1976.

White, Edward H. II (Nov. 14, 1930) -- Lt. Colonel, USAF; deceased; Group 2, September 1962; Gemini 4; died in Apollo spacecraft fire at Kennedy Space Center Jan. 27, 1967.

Williams, Clifton C., Jr. (Sept. 26, 1932) -- Major, USMC; deceased Group 3, October 1963; died in T-38 crash near Tallahassee, Fla., Oct. 5, 1967.

Williams, Donald E. (Feb. 13, 1942) -- Commander, USN; flight, pilot; Group 8, August 1979.

Worden, Alfred M. (Feb. 7, 1932) -- Colonel, USAF (Ret.); Group 5, April 1966; Apollo 15; was Chief, Systems Studies Division, NASA Ames Research Center, Mountain View; Calif.; resigned from Air Force and NASA September 1975.

Young, John W. (Sept. 24, 1930) -- Captain, USN (Ret.); flight, pilot; Group 2, September 1962; Gemini 3, Gemini 10, Apollo 16, STS-1; Chief, Astronaut Office, Johnson Space Center, Houston; retired from Navy in September 1976.

ASTRONAUTS WHO HAVE FLOWN IN SPACE (47)

One Flight (29)

William A. Anders	Apollo 8
Vance D. Brand	Apollo Soyuz Test Project
M. Scott Carpenter	Mercury 7
Gerald P. Carr	Skylab 4
Robert L. Crippen	STS-1 (Columbia)
Walter Cunningham	Apollo 7
Charles M. Duke, Jr.	Apollo 16
Donn F. Eisele	Apollo 7
Joe H. Engle	STS-2 (Columbia)
Ronald E. Evans	Apollo 17
C. Gordon Fullerton	STS-3 (Columbia)
Owen K. Garriott	Skylab 3
Edward G. Gibson	Skylab 4
John H. Glenn	Mercury 6
Fred W. Haise, Jr.	Apollo 13
James B. Irwin	Apollo 15
Joseph P. Kerwin	Skylab 2
Thomas K. Mattingly, II	Apollo 16
Edgar D. Mitchell	Apollo 14
William R. Pogue	Skylab 4
Stuart A. Roosa	Apollo 14
Harrison H. Schmitt	Apollo 17
Russell L. Schweickart	Apollo 9
Donald K. Slayton	Apollo Soyuz Test Project
John L. Swigert, Jr.	Apollo 13
Richard H. Truly	STS-2 (Columbia)
Paul J. Weitz	Skylab 2
Edward H. White, II	Gemini 4
Alfred M. Worden	Apollo 15

Two Flights (11)

Edwin E. Aldrin, Jr.	Gemini 12, Apollo 11
Neil A. Armstrong	Gemini 8, Apollo 11
Alan L. Bean	Apollo 12, Skylab 3
Frank Borman	Gemini 7, Apollo 8
Michael Collins	Gemini 10, Apollo 11
L. Gordon Cooper	Mercury 9, Gemini 5
Jack R. Lousma	Skylab 3, STS-3 (Columbia)
Richard F. Gordon, Jr.	Gemini 11, Apollo 12
Virgil I. Grissom	Mercury 4, Gemini 3
James A. McDivitt	Gemini 4, Apollo 9
Alan B. Shepard, Jr.	Mercury 3, Apollo 14

Three Flights (3)

Eugene A. Cernan

Gemini 9, Apollo 10,
Apollo 17

Walter M. Schirra Jr.

Mercury 8, Gemini 6,
Apollo 7

David R. Scott

Gemini 8, Apollo 9,
Apollo 15

Four Flights (3)

Charles Conrad Jr.

Gemini 5, Gemini 11,
Apollo 12, Skylab 2

James A. Lovell Jr.

Gemini 7, Gemini 12,
Apollo 8, Apollo 13

Thomas P. Stafford

Gemini 6, Gemini 9,
10, Apollo Soyuz Test
Project

Five Flights (1)

John W. Young

Gemini 3, Gemini 10,
Apollo 10, Apollo 16,
STS-1 (Columbia)

ASTRONAUTS COMPARATIVE SPACE FLIGHT TIME

<u>ASTRONAUT</u>	<u>FLIGHTS</u>	<u>HRS., MINS.</u>
Carr	1	2017:15
Gibson	1	2017:15
Pogue	1	2017:15
*Bean (4th)	2	1671:45
Lousma	2	1619:13
Garriott	1	1427:09
*Conrad (3rd)	4	1179:38
Lovell	4	715:05
Kerwin	1	672:49
Weitz	1	672:49
*Young (9th)	5	587:54
*Cernan (11th)	3	566:15
*Scott (7th)	3	546:54
Stafford	4	507:43
Borman	2	477:36
McDivitt	2	338:57
Gordon	2	315:53
Evans	1	301:51
*Schmitt (12th)	1	301:51
Schirra	3	295:13
*Irwin (8th)	1	295:11
Worden	1	295:11
*Aldrin (2nd)	2	289:53
Collins	2	266:05
Mattingly	1	265:51
*Duke (10th)	1	265:51
Eisele	1	260:09
Cunningham	1	260:09
Schweickart	1	241:01
Cooper	2	225:15
Brand	1	217:28
Slayton	1	217:28
*Shepard (5th)	2	216:17
*Mitchell (6th)	1	216:01
Roosa	1	216:01
*Armstrong (1st)	2	206:00
Fullerton	1	192:09
Anders	1	147:00
Haise	1	142:54
Swigert	1	142:54
White	1	97:56
Crippen	1	54:21
Engle	1	54:10
Truly	1	54:10
Grissom	2	5:08
Carpenter	1	4:56
Glenn	1	4:55

* Walked on the lunar surface (in order of walk)

U.S. MANNED FLIGHT RECORD

(Names listed below the dotted lines are backup crews. Names in parentheses are launch vehicles.)

KEY: C - Commander
CM - Command Module Pilot
DM - Docking Module Pilot
LM - Lunar Module Pilot
P - Pilot
SP - Science Pilot

Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Mercury 3 (Redstone) "Freedom 7"	Shepard, Alan B., Jr. ----- Glenn, John H.	May 5, 1961	00:15:22	Suborbital flight -- first American in space; USS Champlain, Atlantic recovery.
Mercury 4 (Redstone) "Liberty Bell 7"	Grissom, Virgil I. ----- Glenn, John H.	July 21, 1961	00:15:37	Also suborbital; successful but spacecraft sank, astronaut rescued. USS Randolph, Atlantic recovery.
Mercury 6 (Atlas) "Friendship 7"	Glenn, John H. ----- Carpenter, M. Scott	Feb. 20, 1962	04:55:23	Three-orbit flight; first American in orbit; retropack retained when erroneous signal indicated heat shield possibly loose; capsule landed 40 miles uprange; USS Noa, Atlantic recovery.
Mercury 7 (Atlas) Aurora 7"	Carpenter, M. Scott ----- Schirra, Walter M., Jr.	May 24, 1962	04:56:05	Also three-orbit; yaw error at manual retrofire caused 250-miles landing overshoot; USS Pierce, Atlantic recovery.
Mercury 8 (Atlas) "Sigma 7"	Schirra, Walter M., Jr. ----- Cooper, L. Gordon	Oct. 3, 1962	09:13:11	Six-orbit flight; capsule landed 4 1/2 miles from recovery ship USS Kearsarge, Pacific recovery.
Mercury 9 (Atlas) "Faith 7"	Cooper, L. Gordon ----- Shepard, Alan B., Jr.	May 15-16, 1963	34:19:49	Twenty-one orbits to evaluate effects on man of 1 day in space; landed 4 1/2 miles from USS Kearsarge, Pacific recovery.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Gemini 3 (Titan) "Molly Brown"	C Grissom, Virgil I. P Young, John W. ----- C Schirra, Walter M., Jr. P Stafford, Thomas P.	March 23, 1965	04:53:00	Three-orbit demonstration of the spacecraft; maneuver over Texas on first pass changed orbital path of a manned spacecraft for first time; landed about 50 miles uprange; USS Intrepid, Atlantic recovery.
Gemini 4 (Titan)	C McDivitt, James A. P White, Edward H. II ----- C Borman, Frank P Lovell, James A., Jr.	June 3-7, 1965	97:56:11	Four-day flight with White first American to walk in space in 20-minute extravehicular activity (hatch open 36 minutes); after 62 revolutions of Earth, landed 50 miles up range from USS Wasp, Atlantic recovery.
Gemini 5 (Titan)	C Cooper, L. Gordon P Conrad, Charles, Jr. ----- C Armstrong, Neil A. P See, Elliott J.	Aug. 21-29, 1965	190:55:14	First use of fuel cells for electric power; evaluated guidance and navigation system for future rendezvous missions; incorrect navigation coordinates from ground control resulted in landing 90 miles short; 120 revolutions; USS Lake Champlain Atlantic recovery.
Gemini 7 (Titan)	C Borman, Frank P Lovell, James A., Jr. ----- C White, Edward H. II P Collins, Michael	Dec. 4-18, 1965	330:35:31	Longest-duration Gemini flight, provided rendezvous target for Gemini 6A; crew flew portions of mission in shirtsleeves for first time; 206 revolutions; landed 6.4 miles from target, USS Wasp, Atlantic recovery.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Gemini 6-A (Titan)	C Schirra, Walter M., P Stafford, Thomas P. ----- C Grissom, Virgil I. P Young, John W.	Dec. 15-16, 1965	25:51:24	Rescheduled to rendezvous with Gemini 7 after original target Agena failed to orbit; 6-A launch postponed 3 days when launch vehicle engines automatically shut down 1.2 seconds after ignition; completed first space rendezvous; after 16 revolutions, landed within 7 miles of target to initiate series of pinpoint landings by Gemini spacecraft, USS Wasp, Atlantic recovery.
Gemini 8 (Titan)	C Armstrong, Neil A. P Scott, David R. ----- C Conrad, Charles, Jr. P Gordon, Richard F., Jr.	March 16, 1966	10:41:26	First docking of one space vehicle with another, about 27 minutes after docking, Gemini-Agena combination began to yaw and roll at increasing rates; emergency procedures included undocking, deactivation of malfunctioning spacecraft control system, activation of reentry control system. Mission was terminated and midway through 7th revolution spacecraft landed 1.1 miles from planned landing point in secondary area in western Pacific; destroyer USS Mason picked up crew 3 hours later.
Gemini 9-A (Titan)	C Stafford, Thomas P. P Cernan, Eugene A. ----- C Lovell, James A., Jr. P. Aldrin, Edwin E, Jr.	June 3-6, 1966	72:21:00	Rescheduled to rendezvous and dock with augmented docking adapter after original target Agena failed to orbit; adapter shroud did not completely separate, making docking impossible; three different types of rendezvous were completed; Cernan carried out 2 hours, 7 minutes of EVA; 44 revolutions; 0.38 miles from target, USS Wasp, Atlantic recovery.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Gemini 10 (Titan)	C Young, John W. P Collins, Michael ----- C Bean, Alan L. P Williams, Clifton C.	July 18-21, 1966	70:46:39	First use of Agena target vehicle's propulsion systems; spacecraft also rendezvoused with Gemini 8 target vehicle; Collins had 49 minutes of EVA standing in hatch, 39-minute EVA to retrieve experiment from Agena 8; 43 revolutions 3.4 miles, USS Guadalcanal, Atlantic recovery.
Gemini 11 (Titan)	C Conrad, Charles, Jr. P Gordon, Richard F., Jr. ----- C Armstrong, Neil A. P Anders, William A.	Sept. 12-15, 1966	71:17:08	Gemini record altitude (739.2 miles) reached using Agena propulsion after first-revolution rendezvous and docking; Gordon fastened Agena-anchor tether to Gemini docking bar, and spacecraft later made 2 revolutions of Earth in tethered configuration; Gordon 33-minute EVA and 2-hour, 5-minute standup EVA; 44 revolutions; 1.5 miles, USS Guam, Atlantic recovery.
Gemini 12 (Titan)	C Lovell, James A., Jr. P Aldrin, Edwin E., Jr. ----- C Cooper, L. Gordon P Cernan, Eugene A.	Nov. 11-15, 1966	94:34:31	Final Gemini flight; Aldrin logged 2-hour 29-minute EVA for Gemini record total of 5 hours 30 minutes of extra-vehicular activity; 59 revolutions, 2.6 miles, USS Wasp, Atlantic recovery.
Apollo 7 (Saturn 1B)	C Schirra, Walter M. CM Eisele, Donn F. LM Cunningham, Walter ----- C Stafford, Thomas P. CM Young, John W. LM Cernan, Eugene A.	Oct. 11-22, 1968	260:09:03	First manned flight of Apollo spacecraft command-service module only, 163 revolutions; USS Essex, Atlantic recovery -- all Apollo spacecraft splashed down within 10 miles of predicted landing point.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Apollo 8 (Saturn V)	C Borman, Frank CM Lovell, James A., Jr. LM Anders, Williams A. ----- C Armstrong, Neil A. CM Aldrin, Edwin E., Jr. LM Haise, Fred W., Jr.	Dec. 21-27, 1968	147:00:42	First flight to the Moon (command-service module only); views of lunar surface televised to Earth; 10 revolutions of the Moon; USS Yorktown, Pacific recovery.
Apollo 9 (Saturn V) CM "Gumdrop" LM "Spider"	C McDivitt, James A. CM Scott, David R. LM Schweickart, Russell L. ----- C Conrad, Charles, Jr. CM Gordon, Richard F. LM Bean, Alan L.	March 3-13, 1969	241:00:54	First manned flight of lunar module; Schweickart 37-minute EVA from LM; 151 revolutions; USS Guadalcanal, Atlantic recovery.
Apollo 10 (Saturn V) CM "Charlie Brown" LM "Snoopy"	C Stafford, Thomas P. CM Young, John W. LM Cernan, Eugene A. ----- C Cooper, L. Gordon CM Eisele, Donn F. LM Mitchell, Edgar D.	May 18-26, 1969	192:03:23	First lunar module orbit of Moon; 31 revolutions of Moon (4 revolutions by undocked LM); USS Princeton, Pacific recovery.
Apollo 11 (Saturn V) CM "Columbia" LM "Eagle"	C Armstrong, Neil A. CM Collins, Michael LM Aldrin, Edwin E., Jr. ----- C Lovell, James A., Jr. CM Anders, William A. LM Haise, Fred W., Jr.	July 16-24, 1969	195:18:35	First lunar landing; Sea of Tranquility; lunar stay time 21 hours, 36 minutes, 21 seconds; Armstrong and Aldrin EVA (hatch open to hatch close) 2 hours, 31 minutes, 40 seconds; lunar surface samples 48.5 pounds; 30 revolutions; USS Hornet, Pacific recovery.
Apollo 12 (Saturn V) CM "Yankee Clipper" LM "Intrepid"	C Conrad, Charles, Jr. CM Gordon, Richard F. LM Bean, Alan L. ----- C Scott, David R. CM Worden, Alfred M. LM Irwin, James B.	Nov. 14-24, 1969	244:36:25	Ocean of Storms; stay time 31 hours 31 minutes; Conrad and Bean EVAs 3 hours 56 minutes and 3 hours 49 minutes; lunar samples 74.7 pounds plus parts from Surveyor 3 unmanned spacecraft; 45 revolutions; USS Hornet, Pacific recovery.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Apollo 13 (Saturn V) CM "Odyssey" LM "Aquarius"	C Lovell, James A., Jr. CM Swigert, John L., Jr. LM Haise, Fred W., Jr. ----- C Young, John W. CM Swigert, John L., Jr. LM Duke, Charles M., Jr.	April 11-17, 1970	142:54:41	Mission aborted after service module oxygen tank ruptured; using lunar module oxygen and power until just before reentry, crew returned safely to Earth; USS Iwo Jima, Pacific recovery.
Apollo 14 (Saturn V) CM "Kitty Hawk" LM "Antares"	C Shepard, Alan B., Jr. CM Roosa, Stuart A. LM Mitchell, Edgar D. ----- C Cernan, Eugene A. CM Evans, Ronald E. LM Engle, Joe H.	Jan. 13 - Feb. 9, 1971	216:01:57	Fra Mauro, stay time 33:31; Shepard and Mitchell EVAs 4:48 and 4:35; samples 96 pounds; 34 revolutions; USS New Orleans, Pacific recovery.
Apollo 15 (Saturn V) CM "Endeavour" LM "Falcon"	C Scott, David R. CM Worden, Alfred M. LM Irwin, James B. ----- C Gordon, Richard F., Jr. CM Brand, Vance D. LM Schmitt, Harrison H.	July 26 - Aug. 7, 1971	295:11:53	Hadley Apennine; first use of lunar roving vehicle, stay time 66:55; Scott standup EVA 33 minutes, Scott and Irwin EVAs 6:33; Worden trans-Earth EVA 38 minutes; samples 170 pounds; 74 revolutions; USS Okinawa, Pacific recovery.
Apollo 16 (Saturn V) CM "Casper" LM "Orion"	C Young, John W. CM Mattingly, Thomas K. II LM Duke, Charles M., Jr. ----- C Haise, Fred W., Jr. CM Roosa, Stuart A. LM Mitchell, Edgar D.	April 16-27, 1972	265:51:05	Descartes highlands, stay time 71:02; Young and Duke EVAs 7:11, 7:23 and 5:40, Mattingly, trans-Earth EVA 1:24; samples 213 pounds; 64 revolutions; USS Ticonderoga, Pacific recovery.
Apollo 17 (Saturn V) CM "America" LM "Challenger"	C Cernan, Eugene A. CM Evans, Ronald E. LM Schmitt, Harrison H. ----- C Young, John W. CM Roosa, Stuart A. LM Duke, Charles M., Jr.	Dec. 7-19, 1972	301:51:59	Taurus-Littrow, stay time 75:00; Cernan and Schmitt EVAs 7:12, 7:37 and 7:15, Evans trans-Earth EVA 1:06; samples 243 pounds; 75 revolutions; USS Ticonderoga, Pacific recovery. First night launch; Dec. 6 in Central, Mountain and Pacific time zones.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
Skylab 2 (Saturn 1B)	C Conrad, Charles, Jr. SP Kerwin, Joseph P. P Weitz, Paul J. ----- C Schweickart, Russell L. SP Musgrave, F. Story, Dr. P McCandless, Bruce II	May 25 - June 22, 1973	672:49:49 (28 days)	First U.S. manned orbiting space station mission; crew deployed solar shield; released stuck solar panel. These repair activities permitted manned operations of the Orbital Workshop after meteoroid shield was damaged and torn off during boost. Data obtained on 46 of 55 experiments. Crew performed three space walks totaling 5 hours 41 minutes; USS Ticonderoga.
Skylab 3 (Saturn 1B)	C Bean, Alan L. SP Garriott, Owen K. P Lousma, Jack R. ----- C Brand, Vance D. SP Lind, Don L., Dr. P Lenoir, William E., Dr.	July 28 - Sept. 25, 1973	1427:09:04 (59 days)	Crew performed systems and operational tests, deployed new solar shield, replaced rate gyros. Crew substantially exceeded premission plans for scientific activities. Performed three space walks totaling 13 hours 44 minutes; USS New Orleans.
Skylab 4 (Saturn 1B)	C Carr, Gerald P. SP Gibson, Edward G., Dr. P Pogue, William R. ----- C Brand, Vance D. SP Lind, Don L., Dr. P Lenoir, William E., Dr.	Nov. 16, 1973 - Feb. 8, 1974	2017:15:32 (84 days)	Final Skylab manned visit; longest flight of men in space to date. Crew replenished coolant supplies, antenna, made observations of Comet Kohoutek. Crew performed four walks totaling 22 hours, 21 minutes. Set record for space walk duration -- 7 hours 1 minute; USS New Orleans.
Apollo Soyuz Test Project (Saturn 1B)	C Stafford, Thomas P. CM Brand, Vance D. DM Slayton, Donald K. ----- C Bean, Alan L. CM Evans, Ronald E. DM Lousma, Jack R.	July 15-24, 1975	217:28:24 (9 days)	First U.S.-U.S.S.R. joint manned mission; accomplished spacecraft rendezvous and docking; crew transfer; docking; and undocking; interaction of control centers and interaction of spacecraft crews; USS New Orleans.

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Mission	Crew	Date	Duration Hr:Min:Sec	Remarks
STS-1	C Young, John W. P Crippen, Robert L. ----- C Engle, Joe H. P Truly, Richard H.	April 12-14, 1981	54:20:52	First flight of reusable Space Shuttle (Columbia). Proved concept. First landing of U.S. manned spacecraft on land. First use of solid rockets in manned flight.
STS-2	C Engle, Joe H. P Truly, Richard H. ----- C Mattingly, Thomas K. P Hartsfield, Henry W.	Nov. 12-14, 1981	54:10:13	First reuse of spacecraft (Columbia). Mission planned for 124 hrs but ended early due to loss of one of three fuel cells. Remote manipulator arm tested successfully. 90 percent of primary mission objectives accomplished including data acquisition by Earth Resources pallet OSTA-1.
STS-3	C Lousma, Jack R. P Fullerton, C. Gordon ----- C Mattingly Thomas K. P Hartsfield, Henry W.	March 22-30, 1982	192:04:49 (8-days)	Third use of orbiter Columbia. Payload included Space Sciences experiments (OSS-1). Landed at White Sands, N.M. due to wet lakebed at Edwards AFB, Calif. Mission extended one day because of high winds at White Sands.

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EXTRAVEHICULAR ACTIVITY (EVA) RECORD

Mission	Launch Date	In-Flight		Lunar Exploration		Lunar-Stay Time	
		Astronaut	Hrs/Min	Astronaut	Hrs/Min	Hrs/Min	Site
Gemini 4	6/3/65	White	00:23				
Gemini 9	6/3/66	Cernan	2:10				
Gemini 10	7/18/66	Collins	1:27				
Gemini 11	9/12/66	Gordon	2:44				
Gemini 12	11/11/66	Aldrin	5:30				
Apollo 9	3/3/69	Schweickart	00:46				
Apollo 11	7/16/69			Armstrong	2:40	21:36	Sea of
Apollo 12	11/14/69			Aldrin	2:15		Tranquility
Apollo 14	1/31/71			Conrad	7:45	31:31	Ocean of
Apollo 15	7/26/71	Worden	00:38	Bean			Storms
Apollo 16	4/16/72	Mattingly	1:13	Shepard	9:17	33:31	Fra Mauro
Apollo 17	12/7/72	Evans	1:06	Mitchell			
				Scott	18:35	66:54	Hadley
				Irwin			Apennine
				Young	20:15	71:14	Descartes
				Duke			
				Cernan	22:04	74:59	Taurus-
				Schmitt			Littrow
Skylab SL 1&2 1st Manned Visit	5/25/73	Conrad	6:34				
		Kerwin	3:58				
		Weitz	2:11				
Skylab SL 3 2nd Manned Visit	7/28/73	Bean	2:41				
		Garriott	13:42				
		Lousma	11:01				
Skylab SL 4 3rd Manned Visit	11/16/73	Carr	15:48				
		Gibson	15:17				
		Pogue	13:31				

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